



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

Owen J. Folsom, Inc.
Penobscot County
Alton, Maine
A-617-71-N-A (SM)

Departmental
Findings of Fact and Order
Air Emission License
Amendment #1

FINDINGS OF FACT

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

Owen J. Folsom, Inc. (Folsom) was issued Air Emission License A-617-71-M-R/M on October 1, 2012, permitting the operation of emission sources associated with their concrete batch plant and crushed stone and gravel facility.

Folsom has requested a minor revision to their license in order to convert their Boiler #1 from No. 2 fuel oil to propane and includes the installation of a new propane fired boiler.

The equipment addressed in this license is located at Route 16, Alton, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type</u>	<u>Install. Date</u>
*Boiler #1	0.55	3	Propane	1993
Boiler #3	1.44	15.75	Propane	2011

* Boiler #1 is considered an insignificant activity and does not need to be licensed; it is listed here for inventory purposed only.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
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(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

C. Application Classification

Although Folsom has installed a new propane fired boiler, Folsom is limited in the amount of propane it can burn at its facility. This amendment will not change this limit, thus this amendment will not increase emissions of any pollutant. Therefore, this modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boiler # 3

Folsom installed and is operating Boiler #3 for heat. The boiler is rated at 1.44 MMBtu/hr and fires propane. The boiler was installed in 2011 and exhausts through its own stack.

Due to the size, the boiler is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BACT Findings

The BACT emission limits for the boiler were based on the following:

Propane

PM/PM ₁₀	–	0.05 lb/MMBtu based on 06-096 CMR 115, BACT
SO ₂	–	0.09 lb/1000 gal based on AP-42, Table 1.5-1, dated 10/96
NO _x	–	13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
CO	–	7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08

- VOC – 0.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 10/96
Opacity – 06-096 CMR 101

The BACT emission limits for the boiler are the following:

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Boiler #3 (1.44 MMBtu/hr) propane	0.07	0.07	0.001	0.20	0.12	0.01

Visible emissions from the Boiler #3 shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period. [06-096 CMR 101]

Folsom is limited to 20,000 gallons/yr of propane for its facility.

2. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used.

3. 40 CFR Part 63 Subpart JJJJJ

Boiler #3 is not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). The unit is not subject to JJJJJ because it fires propane; boilers firing natural gas or propane are not subject to this rule.

C. Annual Emissions

1. Total Annual Emissions

Folsom shall be restricted to the following annual emissions, based on a calendar year total basis. The tons per year limits were calculated based on 80,000 gal/yr diesel fuel fired by the generators and the diesel drive and 20,000 gallons of propane fired in the boilers:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #2 & #3	0.05	0.05	0.01	0.13	0.08	0.01
Generator #1 & #2 and diesel drive	0.66	0.66	0.01	24.17	5.21	1.92
Total TPY	0.71	0.71	0.02	24.3	5.29	1.93

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Folsom is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III.AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

The total facility licensed emissions are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-617-71-N-A subject to the conditions found in Air Emission License A-617-71-M-R/M and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following Specific Condition shall replace the existing Specific Condition (18)

(18) Boiler #2 & #3

A. Fuel Use

1. Boiler #2 and #3 are licensed to fire propane. [06-096 CMR 115, BPT]
2. Fuel compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Annual fuel use for the facility shall be limited to 20,000 gallon/year. The fuel use shall be kept on a monthly and a calendar year total basis. [06-096 CMR 115, BPT]

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B. Emissions from Boiler #2 and Boiler #3 shall not exceed the following [06-096 CMR 115, BPT]:

	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2 (3.05 MMBtu/hr)	0.15	0.15	0.003	0.43	0.25	0.02
Boiler #3 (1.44 MMBtu/hr)	0.07	0.07	0.001	0.20	0.12	0.01

C. Visible emissions from Boiler #2 and Boiler #3 each shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

DONE AND DATED IN AUGUSTA, MAINE THIS 23 DAY OF October, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Maureen Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-617-71-M-R/M.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 12/2/2012
Date of application acceptance: 12/5/2012

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

